

REMARKS

Claims 1-18 are pending in the application. As will be discussed in detail below, it is believed that the application is in condition for allowance.

Claims 1, 2, and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ukai (US 4,810,060) in view of Tang et al. (US 5,684,365) ("Tang"). For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Claims 1, 2, and 10-12 include the following limitation: "a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element and a second end in communication with a power source with a constant voltage; and a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT." The references do not teach or suggest the claimed limitations.

The claims require both a driving TFT and a switching TFT and it is the driving TFT that supplies a drive current to the self-emissive element.

Ukai only teaches a switching TFT. There is no driving TFT in Ukai because there is no electroluminescence element in Ukai to drive. Instead, Ukai only has a switching TFT, which operates as follows:

"Voltage is applied across a selected one of each of the gate and source buses 18 and 19, by which is conducted only one of the thin film transistor 16 that is supplied with the voltage, and charges are stored in the display electrode 15 connected to the drain of the conducted thin film transistor 16. Thus, voltage is applied across the liquid crystal 14 only between the charged display electrode 15 and the common electrode 17, by which only that portion of the liquid crystal 14 is made transparent or untransparent to light, thus providing a selective display." (Emphasis supplied.) See column 1, lines 43-55. Thus, the switching TFT operates so as to provide a voltage to the liquid crystal. There is nothing in Ukai that teaches or suggests a driving TFT that supplies current.

Moreover, it is clear that the switching TFT of Ukai can only be substituted for the switching TFT of the claimed invention. As explained on page 2, lines 8-16 of the

specification, the storage capacitor electrode line 54 forms a storage capacitor 56 by allowing charges to be accumulated between the capacitor electrode 55 connected to the source 13s of the switching TFT 30 and the storage capacitor electrode line 54, while a gate insulating film 12 is disposed therebetween. The storage capacitor 56 is provided for retaining a voltage applied to the gate electrode 41 of the second TFT 40. As can be seen with comparing the operation the switching TFT of Ukai and the switching TFT as described in the specification, the operations those TFTs are similar.

The Examiner asserts that the switching TFT of Ukai can be substituted for the driving TFT in Tang and then operate as a driving TFT. This is completely illogical. Switching TFTs and driving TFTs have different functions and as such, cannot be substituted for one another. The Examiner has not pointed to any reference that teaches the claimed driving TFT.

Ukai teaches that the drain current I_D is proportional to a ratio W/L , and since the drain voltage V_D is proportional to the drain current, the ratios W/L can change the voltage applied to the liquid crystal. See column 3, lines 21-45. Namely, in Ukai, by changing the size of the switching TFT, the current amount is changed to thereby change the voltage to be applied to the liquid crystal. As explained above, the switching TFT operates to provide a voltage to the liquid crystal and depending on the size of the switching TFT, a different voltage will be applied.

On the other hand, in the claim invention, a driving TFT has a first end in electrical communication with the self-emissive element for supplying a drive current to the self-emissive element and a second end in electrical communication with a power source with a constant voltage. The size of the driving TFT in a display pixel for one color is altered from that in a display pixel for another color. Thus, as claimed, the source-drain voltage is basically fixed and does not change when the size of the driving TFT is altered. Instead, the size of the driving TFT changes the drive current supplied to the self-emissive element. Accordingly, the structures and operation of the structures are completely different and one skilled in the art would not substitute the switching TFT of Ukai for the driving TFT of Tang to reach the claimed invention.

The Examiner asserts that both the driving TFT in the claims and Ukai's TFT serve the same function of providing power to change the state of the pixel element. However, that assertion oversimplifies the function of the invention, as both the driving TFT and the switching TFT in the claimed invention operate together to power the display. Thus, one

skilled in the art would substitute a switching TFT for a switching TFT, not a switching TFT for a driving TFT.

The Examiner does not address our argument that the manner in which the two TFTs function is completely different and one skilled in the art would not think to substitute the two different types of TFTs. As we previously explained, the switching TFT of Ukai has similar functions to that of Tang's switching TFT. Thus, the structure for the switching TFT of Ukai may be adapted to that of Tang, but not to the driving TFT. Furthermore, driving TFTs provide a current to an EL element and switching TFTs provide a voltage to a LC element (in Ukai) or a gate of a driving TFT (in Tang); thus, functions of switching TFT and a driving TFT are quite different from each other and it is not possible to readily adapt the structures of the switching TFT of Ukai to the driving TFT of Tang. Accordingly, there is no motivation to combine Ukai and Tang.

Applicant respectfully submits that claims 1, 2, and 10-12 are patentable over Ukai and Tang.

Claims 3-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ukai in view of Tang and further in view of Rumbaugh (US 6,072,272). Claims 3-9 include the following limitation: "a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element and a second end in communication with a power source with a constant voltage; and a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT." As explained above, Ukai and Tang do not teach or suggest that limitation and Rumbaugh does not remedy that deficiency. Thus, Applicant respectfully requests that the rejection be withdrawn.

Claims 13-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ukai in view of Tang, in view of Rumbaugh, and further in view of Codama (US 6,121,726). Claims 13-18 include the following limitation: "a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element and a second end in communication with a power source with a constant voltage; and a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT." As explained above, Ukai and Tang do not teach or suggest that limitations and

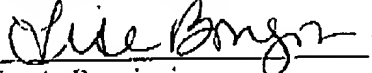
Rumbaugh and Codana do not remedy the deficiency. Thus, Applicant respectfully requests that the rejection be withdrawn.

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicant's attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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August 26, 2004